

**IN THE CLAIMS:**

Claim 1 (Currently amended): A dental appliance designed to be worn in a mouth of a user wherein the user has one or more types of teeth wherein one of the types of teeth is molars wherein a last molar is located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped base having a top portion and a bottom portion wherein the generally U-shaped base has an occlusal surface wherein the occlusal surface contacts the teeth when the base is worn wherein the base has a thickness defined between a first end and a second end wherein the occlusal surface contacts each of the molars of the user when the base is worn to prevent the molar from achieving a malocclusion position wherein a socket is formed in the generally U-shaped base wherein the last molar is inserted into the socket and further wherein the first end and the second end extend beyond the last molar to a point further rearward into the mouth of the user than the last molar; and

a hinge connecting the top portion to the bottom portion wherein the hinge has an upper plate that inserts into a top aperture in the top portion wherein the hinge has a lower plate that inserts into a bottom aperture in the bottom portion wherein the hinge may be removed and re-inserted into the upper aperture and the lower aperture to reversibly detach and re-attach the top portion ~~upper base~~ to the bottom portion ~~lower base~~.

Claim 2 (Previously presented): The dental appliance of Claim 1 wherein the hinge enables the base to be folded.

Claim 3 (Original): The dental appliance of Claim 1 wherein the base is transparent.

Claim 4 (Original): The dental appliance of Claim 1 wherein the occlusal surface is flat.

Claim 5 (Previously presented): The dental appliance of Claim 1 wherein the hinge prevents movement between the top portion and the bottom portion.

Claim 6 (Previously presented): The dental appliance of Claim 1 further comprising:

a wire imbedded within the base wherein the wire extends from the first end of the base to the second end of the base.

Claim 7 (Original): The dental appliance of Claim 1 wherein the base is constructed from a first material and a second material wherein the first material has a lesser degree of rigidity than the second material.

Claim 8 (Previously presented): A dental appliance designed to be worn in a mouth of a user wherein the user has an upper arch having upper teeth and a lower arch having lower teeth wherein one of the upper teeth and the lower teeth are molars, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn wherein the upper base and the lower base are made from a first material; and

a hinge connecting the upper base and the lower base wherein the hinge is sized to insert into slots in the upper base and the lower base wherein a front section of the upper base separates from a front section of the lower base via the hinge wherein the hinge may be reversibly removed from the slots to allow the upper base to separate in its entirety from the lower base wherein the hinge is made from a second material wherein the second material is harder than the first material.

Claim 9 (Original): The dental appliance of Claim 8 further comprising:

holes within the base wherein the user breathes through the holes.

Claim 10 (Previously presented): The dental appliance of Claim 8 further comprising:

lingual tabs extending horizontally from the lower base wherein the lingual tabs extend rearward into the mouth.

Claim 11 (Original): The dental appliance of Claim 8 further comprising:

one or more sockets within the upper base wherein the sockets are sized to fit at least two or more teeth of the user.

Claim 12 (Previously presented): The dental appliance of Claim 8 further comprising:

ribs formed within the upper base at projection points on the upper base wherein the ribs project from the upper base toward the teeth wherein an end portion of the rib farthest from the projection point contacts the teeth to guide the teeth into a correct position.

Claim 13 (Original): The dental appliance of Claim 8 wherein the upper base is constructed from a moisture-absorbent material.

Claim 14 (Currently amended): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position wherein a concaved portion is a depression formed in the upper base wherein the concaved portion is shaped like the tongue and moves the tongue to an elevated position with respect to the lower teeth of the user;  
and

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower

teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position; and

a hinge connecting the upper base to the lower base wherein the hinge has an upper plate that inserts into a top aperture in the upper base wherein the hinge has a lower plate that inserts into a bottom aperture in the lower base wherein the hinge may be removed from and re-inserted into the upper aperture and the lower aperture to reversibly detach and re-attach the upper base to the lower base.

Claim 15 (Original): The dental appliance of Claim 14 further comprising:

sockets within the upper base wherein the sockets are square in shape.

Claim 16 (Original): The dental appliance of Claim 14 wherein the upper base is marked to indicate to the user how to position the upper base within the mouth.

Claim 17 (Currently amended): The dental appliance of Claim 14 further comprising:

a pivot in the hinge wherein the pivot connects the upper plate and the lower plate ~~connecting the upper base and the lower base wherein the hinge allows the upper base to be pivoted toward the lower base and the hinge may be reversibly removed to allow the~~

~~upper base to separate in its entirety from the lower base.~~

Claim 18 (Original): The dental appliance of Claim 14 wherein the lower base is wider than the upper base.

Claim 19 (Previously presented): The dental appliance of Claim 14 further comprising:

a shield extending vertically from the upper base past the upper teeth wherein the shield contacts a front of the mouth.

Claim 20 (Original): The dental appliance of Claim 14 further comprising:

sockets within the upper base wherein the sockets are customized to a shape of the teeth of the user.

Claim 21 (Previously presented): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn wherein a concaved portion is formed on the upper base wherein the concave portion is a depression in the upper base wherein the concave portion is shaped like the tongue and moves the tongue of the user outward with respect to the lower arch of the user wherein the upper base widens the upper arch of the user wherein the upper base has an exterior surface;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the

lower base is worn wherein the lower base has an exterior surface;  
and

a hinge attaching the upper base to the lower base wherein an upper hinge plate inserts into a first slot and a lower hinge plate inserts into a second slot wherein the first slot is in the upper base and the second slot is in the lower base wherein a pivot connects the upper plate to the lower plate and resides outside of the exterior surface of the upper base and the exterior surface of the lower base wherein the hinge is removed and re-inserted into the first slot and the second slot to reversibly detach and re-attach the upper base to the lower base wherein the upper base, the lower base and the hinge are designed by stereolithography.

Claim 22 (Previously presented): The dental appliance of Claim 21 further comprising:

a socket within the upper base shaped to correspond to a shape of one of the teeth.

Claim 23 (Previously presented): The dental appliance of Claim 21 further comprising:

a socket within the lower base shaped to correspond to a shape of one of the teeth.

Claim 24 (Previously presented): The dental appliance of Claim 21 further comprising:

a socket within the upper base wherein the socket is flat.

Claim 25 (Previously presented): The dental appliance of Claim 21

further comprising:

a socket within the lower base wherein the socket is flat.

Claim 26 (Previously presented): The dental appliance of Claim 21 further comprising:

lingual tabs extending horizontally from the lower base wherein the lingual tabs extend rearward.

Claim 27 (Previously presented): The dental appliance of Claim 21 further comprising:

holes within the upper base.

Claim 28 (Previously presented): The dental appliance of Claim 21 further comprising:

holes within the lower base.

Claim 29 (Previously presented): The dental appliance of Claim 21 further comprising:

a labial shield extending vertically from the upper base wherein the labial shield covers the upper teeth and lower teeth.

Claim 30 (Currently amended): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the



lower base is worn wherein the lower base has a spike formed on a lingual surface wherein the tongue of the user is prevented from moving inward with respect to the lower base by the spike on the lingual surface of the lower base; and

a hinge attaching the upper base to the lower base wherein the upper base, the lower base and the hinge are designed manually wherein the upper base has an exterior and an upper slot with an opening on the exterior of the upper base wherein the lower base has an exterior and a lower slot with an opening on the exterior of the lower base wherein an upper portion of the hinge inserts into the upper slot via the opening on the exterior of the upper base wherein a lower portion of the hinge inserts into the lower slot via the opening on the exterior of the lower base wherein the hinge may be removed from and re-inserted into the upper slot and the lower slot to reversibly detach and re-attach the upper base to the lower base.

Claim 31 (Previously presented): The dental appliance of Claim 30 wherein the upper base has a roughened surface.

Claim 32 (Previously presented): The dental appliance of Claim 30 wherein the lower base has a roughened surface.

Claim 33 (Previously presented): The dental appliance of Claim 30 further comprising:

a socket within the upper base wherein the socket is sized to receive two or more of the teeth.

Claim 34 (Previously presented): The dental appliance of Claim 30

further comprising:

a socket within the lower base wherein the socket is sized to receive two or more of the teeth.

Claim 35 (Previously presented): The dental appliance of Claim 30 further comprising:

a rib within the upper base wherein the rib projects from a projection point on the upper base wherein an end portion of the rib farthest from the projection point contacts one or more of the upper teeth to adjust the tooth into a correct position.

Claim 36 (Previously presented): The dental appliance of Claim 30 further comprising:

a rib within the lower base wherein the rib projects from a projection point on the lower base wherein an end portion of the rib farthest from the projection point contacts one or more of the lower teeth to adjust the tooth into a correct position.

Claim 37 (Previously presented): The dental appliance of Claim 30 further comprising:

a socket within the upper base wherein the socket is shaped to correspond to a shape of one or more of the teeth.

Claim 38 (Previously presented): The dental appliance of Claim 30 further comprising:

a socket within the lower base wherein the socket is shaped to correspond to a shape of one or more of the teeth.

Claim 39 (Previously presented): The dental appliance of Claim 30

further comprising:

lingual tabs extending horizontally rearward from the lower base.

Claim 40 (Currently amended): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn wherein the upper base has a first arch width corresponding to the upper arch of the user;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn wherein the lower base has a second arch width corresponding to the lower arch of the user wherein the second arch width of the lower base is greater than or less than the first arch width of the upper base; and

a hinge attaching the upper base to the lower base wherein the upper base, the lower base and the hinge are shaped based on a computer-generated digital image of the mouth of the user wherein the hinge may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 41 (Previously presented): The dental appliance of Claim 40 further comprising:

a rib formed within the upper base wherein the ribs guide the teeth into a correct position.

Claim 42 (Previously presented): The dental appliance of Claim 40 further comprising:

a rib formed within the lower base wherein the ribs guide the teeth into a correct position.

Claim 43 (Previously presented): The dental appliance of Claim 40 wherein the upper base is constructed from a moisture-absorbent material.

Claim 44 (Previously presented): The dental appliance of Claim 40 wherein the lower base is constructed from a moisture-absorbent material.

Claim 45 (Previously presented): The dental appliance of Claim 40 further comprising:

a wire embedded within the upper base.

Claim 46 (Previously presented): The dental appliance of Claim 40 further comprising:

a wire embedded within the lower base.

Claim 47 (Previously presented): A dental appliance designed to be worn in a mouth of a user wherein the user has upper teeth, lower teeth and a tongue, the dental appliance comprising:

a generally U-shaped upper base having a flat occlusal surface;

a generally U-shaped lower base having a flat occlusal surface;

and

a hinge attaching the upper base to the lower base wherein the upper base and the lower base are sized to fit users of various types of dentitions wherein the hinge has an upper portion and a lower portion wherein the upper base has a first slot and a second slot wherein the upper portion of the hinge is removed and re-inserted into the first slot and lower portion of the hinge is removed and re-inserted into the second slot to reversibly detach and re-attach the upper base to the lower base.

Claim 48 (Previously presented): The dental appliance of Claim 47 wherein the hinge has a pivot that connects the upper portion of the hinge to the lower portion of the hinge wherein the pivot resides outside of the upper base and the lower base.

Claim 49 (Previously presented): The dental appliance of Claim 47 wherein the hinge is more rigid than the upper base and the lower base.

Claim 50 (Previously presented): The dental appliance of Claim 47 further comprising:

holes within the upper base.

Claim 51 (Previously presented): The dental appliance of Claim 47 further comprising:

holes within the lower base.

Claim 52 (Previously presented): The dental appliance of Claim 47 further comprising:

a labial shield extending vertically from the upper base past

the upper teeth of a user.

Claim 53 (Previously presented): The dental appliance of Claim 47 further comprising:

a cavity formed within the lower base wherein the cavity is shaped like the tongue of the user and the cavity moves the tongue outward with respect to the mouth of the user.

Claim 54 (Previously presented): The dental appliance of Claim 47 further comprising:

a cavity formed within the upper base wherein the cavity is shaped like the tongue of the user and the cavity moves the tongue to an elevated position with respect to the lower teeth of the user.

Claim 55 (Previously presented): The dental appliance of Claim 47 further comprising:

a cavity formed within the upper base and the lower base wherein the cavity is shaped like the tongue of the user and the cavity moves the tongue to an elevated position with respect to the lower teeth of the user.

Claim 56 (Previously presented): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn wherein the upper base has at least one female portion formed at a posterior end of the upper

base;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn wherein the lower base has at least one female portion formed at a posterior end of the lower base wherein the lower base has a lingual surface wherein a spike is formed on the lingual surface of the lower base wherein the spike contacts the tongue of the user; and

a hinge having a first end which is inserted into a cavity within the upper base and a second end which is inserted into a cavity within the lower base wherein removing the hinge from the cavity within the upper base and removing the hinge from the cavity within the lower base separates the upper base from the lower base wherein returning the hinge to the cavity within the upper base and returning the hinge to the cavity within the lower base re-attaches the upper base to the lower base.

Claim 57 (Previously presented): The dental appliance of Claim 56 wherein the hinge is constructed from metal.

Claim 58 (Previously presented): The dental appliance of Claim 56 wherein the upper base and the lower base are designed by stereolithography.

Claim 59 (Previously presented): The dental appliance of Claim 56 wherein the upper base and the lower base are constructed manually.

Claim 60 (Previously presented): The dental appliance of Claim 56

further comprising:

a socket within the upper base wherein the socket is shaped to correspond to a shape of at least one of the teeth of the user.

Claim 61 (Previously presented): The dental appliance of Claim 56 further comprising:

a socket within the lower base wherein the socket is shaped to correspond to a shape of at least one of the teeth of the user.

Claim 62 (Previously presented): The dental appliance of Claim 56 wherein the hinge is more rigid than the upper base and the lower base.

Claim 63 (Previously presented): The dental appliance of Claim 56 further comprising:

lingual tabs extending horizontally from the lower base into the mouth.

Claim 64 (Previously presented): The dental appliance of Claim 56 further comprising:

a labial shield extending vertically from the upper base past the upper teeth of the user.

Claim 65 (Currently amended): A method for correcting a malocclusion of a user ~~dental appliance designed to be worn by a user~~ wherein the user has a tongue and teeth wherein at least one of the teeth is a molar and another tooth is a last molar wherein the last molar is located furthest rearward into the mouth of the user wherein a space is provided between two of the teeth, the method ~~dental appliance~~



comprising the steps of:

forming a generally U-shaped base having a first socket that receives the teeth of the user wherein the first socket is formed from a flat occlusal surface having walls extending outward with respect to the flat occlusal surface wherein one of the walls of the socket has a rib formed wherein the rib projects from a projection point on the wall of the socket wherein the rib has an end portion farthest from the projection point;

placing the generally U-shaped base on the teeth of the user;  
and

closing the space between the teeth wherein the end portion of the rib contacts the teeth and ~~rotates the teeth, torques the teeth or closes a~~ the space between the teeth to correct crowding of the teeth of the patient ~~wherein a cavity is formed in the generally U-shaped base wherein the cavity is a tongue-shaped depression in the base that moves the tongue of the user.~~

Claim 66 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

positioning ~~wherein the rib projection is positioned on the occlusal surface so as to be~~ adjacent to an incisor when the base is worn.

Claim 67 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

positioning ~~wherein the rib projection is positioned on the~~

~~occlusal surface so as to be~~ adjacent to a molar when the base is worn.

Claim 68 (Currently amended): The method ~~dental appliance~~ of Claim 65 wherein the occlusal surface is flat in an area surrounding the rib projection.

Claim 69 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

positioning ~~wherein the rib projection is positioned~~ on a buccal surface of the user and a lingual surface of the user so as to be adjacent to a molar when the base is worn.

Claim 70 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

forming a lingual tab extending horizontally rearward from the base.

Claim 71 (Currently amended): The method ~~dental appliance~~ of Claim 65 wherein the occlusal surface is roughened.

Claim 72 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

embedding a wire ~~embedded~~ within the base wherein the base has a first end and a second end wherein the first end and the second end extend beyond the last molar further rearward into the mouth of the user than the last molar and further wherein the wire extends from the first end of the base to the second end of the base.

Claim 73 (Currently amended): The method ~~dental appliance~~ of Claim

65 further comprising the step of:

constructing ~~wherein~~ the base ~~is constructed~~ from a moisture-absorbent material.

Claim 74 (Currently amended): The method ~~dental appliance~~ of Claim 65 further comprising the step of:

forming a second socket within the occlusal surface wherein the second socket is sized to receive one or more teeth of the user.

Claim 75 (Previously presented): The dental appliance of Claim 14 wherein the lower base is marked to indicate to the user how to position the lower base within the mouth.

Claim 76 (Previously presented): The dental appliance of Claim 14 wherein the upper base is wider than the lower base.

Claim 77 (Previously presented): The dental appliance of Claim 14 further comprising:

sockets within the lower base wherein the sockets are customized to a shape of the teeth of the user.

Claim 78 (Currently amended): A dental appliance designed to be worn in a mouth of a user having an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts the upper teeth of the user when the upper base is worn wherein the upper base has a first arch width defined between a first end of the upper base and a second end of the upper base;

a generally U-shaped lower base adjacent to the upper base

wherein the lower base contacts lower teeth of the user when the lower base is worn wherein the lower base has a second arch width defined between a first end of the lower base and the second end of the lower base wherein the second arch width of the lower base is greater than or is less than the first arch width of the upper base;

a slot within the lower base or the upper base wherein the slot is sized to receive one or more teeth of the user; and

a hinge connecting the upper base and the lower base wherein the hinge may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 79 (Previously presented): The dental appliance of Claim 78 wherein the slot is preformed to receive one or more teeth of the user.

Claim 80 (Previously presented): The dental appliance of Claim 78 wherein the slot is customized to receive one or more teeth of the user.

Claim 81 (Previously presented): The dental appliance of Claim 78 further comprising:

a socket within the lower base or the upper base wherein the socket is preformed to receive one or more teeth of the user.

Claim 82 (Previously presented): The dental appliance of Claim 78 further comprising:

a socket within the lower base or the upper base wherein the

socket is customized to receive one or more teeth of the user.

Claim 83 (Previously presented): The dental appliance of Claim 78 further comprising:

holes within the lower base or the upper base wherein the user breathes through the holes.

Claim 84 (Previously presented): The dental appliance of Claim 78 further comprising:

lingual tabs extending from the lower base wherein the lingual tabs extend rearward into the mouth.

Claim 85 (Previously presented): The dental appliance of Claim 78 further comprising:

ribs formed within the upper base wherein the ribs guide the teeth into a correct position.

Claim 86 (Previously presented): The dental appliance of Claim 78 wherein the upper base is constructed from a moisture-absorbent material.

Claim 87 (Currently amended): A dental appliance designed to be worn in a mouth of a user having an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

a generally U-shaped upper base which contacts the upper teeth of the user when the upper base is worn;

a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn;

a cavity formed within the upper base and the lower base wherein the cavity is sized to receive a tongue of the user wherein the cavity moves the tongue to an elevated position with respect to the lower arch of the user wherein the elevated position of the tongue expands the upper arch of the user; and

a hinge connecting the upper base and the lower base wherein the hinge may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 88 (Previously presented): The dental appliance of Claim 87 further comprising:

a socket within the lower base or the upper base wherein the socket is sized to receive one or more teeth of the user.

Claim 89 (Previously presented): The dental appliance of Claim 87 further comprising:

a slot within the lower base or the upper base wherein the slot is sized to receive one or more teeth of the user.

Claim 90 (Previously presented): The dental appliance of Claim 87 further comprising:

lingual tabs extending from the lower base or the upper base wherein the lingual tabs extend rearward into the mouth.

Claim 91 (Previously presented): The dental appliance of Claim 87 further comprising:

ribs formed within the upper base or the lower base wherein the

ribs guide the teeth into a correct position.

Claim 92 (Previously presented): A dental appliance designed to be worn in a mouth of a user having an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

- a generally U-shaped upper base which contacts the upper teeth of the user when the upper base is worn;

- a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn;

- an attachment within the lower base or the upper base; and

- a hinge having a length defined between a first end and a second end wherein the hinge connects the upper base and the lower base wherein the first end of the hinge inserts into the upper base and further wherein the second end of the hinge inserts into the lower base wherein the hinge may be removed and re-inserted into the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 93 (Previously presented): The dental appliance of Claim 92 further comprising:

- a socket within the lower base or the upper base wherein the socket is sized to receive one or more teeth of the user.

Claim 94 (Previously presented): The dental appliance of Claim 92 further comprising:

a socket within the lower base or the upper base wherein the socket is sized to receive one or more teeth of the user.

Claim 95 (Previously presented): The dental appliance of Claim 92 further comprising:

lingual tabs extending horizontally from the lower base or the upper base wherein the lingual tabs extend rearward into the mouth.

Claim 96 (Previously presented): The dental appliance of Claim 92 further comprising:

ribs formed within the upper base or the lower base wherein the ribs project from the upper base or the lower base wherein an end portion of the rib contacts the teeth and guides the teeth into a correct position.

Claim 97 (Previously presented): The dental appliance of Claim 92 wherein the attachment is a hook attached to another device worn by the user.

Claim 98 (Previously presented): The dental appliance of Claim 92 wherein the attachment is a tube connected to a wire.

Claim 99 (Previously presented): The dental appliance of Claim 92 wherein the attachment is a clasp that extends around a mesial side of a tooth and a distal side of the tooth.

Claim 100 (Previously presented): The dental appliance of Claim 92 further comprising:

elastics or a head gear attached to the attachment.

Claim 101 (Previously presented): The dental appliance of Claim 92



wherein the attachment secures the lower base or the upper base to the mouth of the user.

Claim 102 (Previously presented): The dental appliance of Claim 92 wherein the attachment is constructed from metal or plastic.

Claim 103 (Previously presented): A dental appliance designed to be worn by a user wherein the user has an upper arch having upper teeth and a lower arch having lower teeth wherein at least one of the teeth is a molar and another tooth is a last molar that is located furthest rearward into the mouth of the user, the dental appliance comprising:

- a generally U-shaped lower base wherein the lower base contacts the lower teeth of the user when the lower base is worn;

- a generally U-shaped upper base wherein the upper base contacts the upper teeth of the user when the upper base is worn wherein the upper base has a lingual surface extending outwardly with respect to the upper arch of the user wherein the lingual surface has a projection or a rib formed wherein the projection or the rib extends inwardly with respect to the lower arch of the user wherein the projection or the rib blocks a space between the upper arch and the lower arch to correct thumb sucking of the patient; and

- a hinge having a first end reversibly inserted into a first cavity and a second end reversibly inserted into a second cavity wherein the first cavity is within the upper base and the second cavity is within the lower base.

Claim 104 (Previously presented): The dental appliance of Claim 103 wherein the projection or the rib is positioned on the lingual surface so as to be adjacent to an incisor when the base is worn.

Claim 105 (Previously presented): The dental appliance of Claim 103 wherein the lingual surface is flat in an area surrounding the projection or the rib.

Claim 106 (Previously presented): The dental appliance of Claim 103 further comprising:

a lingual tab extending horizontally rearward from the base.

Claim 107 (Previously presented): The dental appliance of Claim 103 further comprising:

a wire embedded within the base wherein the base has a first end and a second end wherein the first end and the second end extend beyond the last molar to a point further rearward into the mouth of the user than the last molar and the wire extends from the first end to the second end.

Claim 108 (Previously presented): The dental appliance of Claim 103 wherein the base is constructed from a moisture-absorbent material.

Claim 109 (Previously presented): The dental appliance of Claim 103 further comprising:

a socket within the base wherein the socket is sized to receive one or more teeth of the user.

Claim 110 (Previously presented): The dental appliance of Claim 78 further comprising:

ribs formed within the lower base wherein the ribs project from the lower base toward the teeth wherein an end portion of the rib contacts the teeth to guide the teeth into a correct position.

Claim 111 (Previously presented): The dental appliance of Claim 78 wherein the lower base is constructed from a moisture-absorbent material.

Claim 112 (Previously presented): A dental appliance designed to be worn in a mouth of a user having an upper arch having upper teeth and a lower arch having lower teeth, the dental appliance comprising:

- a generally U-shaped upper base which contacts the upper teeth of the user when the upper base is worn;

- a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn;

- a cavity formed within the upper base or the lower base wherein the cavity is a depression in the upper base or the lower base shaped and sized to receive a tongue of the user wherein the cavity moves the tongue outwardly with respect to the lower base; and

- a hinge connecting the upper base and the lower base and removably attached to the upper base and the lower base so that removing the hinge from an upper slot in the upper base and a lower slot in the lower base allows the upper base to separate in its entirety from the lower base and returning the hinge to the upper

slot in the upper base and the lower slot in the lower base re-attaches the upper base to the lower base.

Claim 113 (Previously presented): The dental appliance of Claim 112 further comprising:

a socket within the lower base or the upper base wherein the socket is sized to receive one or more teeth of the user.

Claim 114 (Previously presented): The dental appliance of Claim 112 further comprising:

a socket within the lower base or the upper base wherein the socket is sized to receive one or more teeth of the user.

Claim 115 (Previously presented): The dental appliance of Claim 112 further comprising:

lingual tabs extending horizontally from the lower base or the upper base wherein the lingual tabs extend rearward into the mouth.

Claim 116 (Previously presented): The dental appliance of Claim 112 further comprising:

ribs formed within the upper base or the lower base wherein the ribs guide the teeth into a correct position.

Claim 117 (Previously presented): A dental appliance designed to be worn in a mouth of a user having upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position;

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position; and

sockets within the upper base wherein the sockets are square in shape.

Claim 118 (Currently amended): A dental appliance designed to be worn in a mouth of a user having upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position; ~~and~~

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the

lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position wherein the lower base is wider than the upper base; and

connecting means attached to the upper base and the lower base wherein the connecting means may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 119 (Currently amended): A dental appliance comprising:

a generally U-shaped upper base having a flat occlusal surface;

a generally U-shaped lower base having a flat occlusal surface;

and

a hinge attaching the upper base to the lower base wherein the upper base and the lower base are sized to fit users of various types of dentitions ~~wherein the hinge is removably attached to the upper base and the lower base~~ wherein the hinge may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 120 (Currently amended): A method for correcting a malocclusion of a user ~~dental appliance designed to be worn by a user~~ having teeth wherein a space is provided between two of the

teeth, the method dental appliance comprising the steps of:

forming a generally U-shaped base having an occlusal surface wherein the occlusal surface has a projection ~~or a rib formed;~~

placing the base on the teeth of the user; and

rotating the teeth of the user wherein the projection ~~or the rib rotates the teeth, torques teeth or closes a space between the teeth to correct crowding of the teeth of the patient wherein the base is constructed from a moisture absorbent material.~~

Claim 121 (Currently amended): A dental appliance designed to be worn in a mouth of a user having upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position; ~~and~~

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent

the molar from achieving a malocclusion position wherein the upper base is wider than the lower base; and

connecting means attached to the upper base and the lower base wherein the connecting means may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 122 (Currently amended): A method of treating a malocclusion of dental appliance designed to be worn by a user having teeth wherein a space is provided between two of the teeth, the method dental appliance comprising the steps of:

forming a generally U-shaped base having a hinge wherein the base has a lingual surface wherein the lingual surface has a projection or a rib formed wherein the projection or the rib extends from the lingual surface;

placing the base on the teeth of the user wherein the projection corrects thumb sucking of the patient wherein the base is constructed from a moisture-absorbent material.

Claim 123 (Currently amended): A dental appliance designed to be worn in a mouth of a user having an upper arch having upper teeth and a lower arch having lower teeth wherein one of the upper teeth and the lower teeth are molars, the dental appliance comprising:

a generally U-shaped upper base which contacts upper teeth of the user when the upper base is worn wherein the upper base is constructed from a moisture-absorbent material;



a generally U-shaped lower base adjacent to the upper base wherein the lower base contacts lower teeth of the user when the lower base is worn wherein the upper base and the lower base are made from a first material; and

a hinge connecting the upper base and the lower base wherein the hinge is sized to fit into a rear portion of the upper base and the lower base wherein a front section of the upper base separates from a front section of the lower base via the hinge wherein the hinge is made from a second material wherein the second material is harder than the first material wherein the hinge may be removed from and re-connected to the upper base and the lower base to reversibly detach and re-attach the upper base to the lower base.

Claim 124 (new): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position wherein a concaved portion is a depression formed in the upper base wherein the concaved portion is shaped like the tongue and moves the tongue to an elevated position with respect to the lower teeth of the user;

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position; and

sockets within the upper base wherein the sockets are square in shape.

Claim 125 (new): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position wherein a concaved portion is a depression formed in the upper base wherein the concaved portion is shaped like the tongue and moves the tongue to an elevated position with respect to the lower teeth of the user; and

a generally U-shaped lower base connected to the upper base

wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position.

a hinge connecting the upper base and the lower base wherein the hinge allows the upper base to be pivoted toward the lower base and the hinge may be reversibly removed to allow the upper base to separate in its entirety from the lower base.

Claim 126 (new): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position wherein a concaved portion is a depression formed in the upper base wherein the concaved portion is shaped like the tongue and moves the tongue to an elevated position with respect to the lower teeth of the user; and

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position wherein the lower base is wider than the upper base.

Claim 127 (new): A dental appliance designed to be worn in a mouth of a user wherein the user has a tongue, upper teeth and lower teeth wherein the upper teeth and the lower teeth are comprised of one or more types of teeth wherein one of the types of teeth is molars wherein the molars are located furthest rearward into the mouth of the user, the dental appliance comprising:

a generally U-shaped upper base having an upper occlusal surface wherein the upper occlusal surface contacts the upper teeth and guides the upper teeth into a correct position wherein a concaved portion is a depression formed in the upper base wherein the concaved portion is shaped like the tongue and moves the tongue to an elevated position with respect to the lower teeth of the user; and

a generally U-shaped lower base connected to the upper base wherein the lower base has a lower occlusal surface wherein the

lower occlusal surface contacts the lower teeth and guides the lower teeth into a correct position and wherein the upper occlusal surface and the lower occlusal surface are adjacent and have a combined thickness wherein the upper occlusal surface contacts each molar of the user when the upper base and the lower base are worn to prevent the molar from achieving a malocclusion position wherein the upper base is wider than the lower base.